

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent ap	oplication of
Applicant: Serial No.: Filed: For: Art Unit: Examiner:	Robert A. DeLine, et al. 10/681,759 October 8, 2003 PLUG-IN PRE- AND POSTCONDITIONS FOR STATIC PROGRAM ANALYSIS 2122 Unknown
	INFORMATION DISCLOSURE STATEMENT
	missioner for Patents rginia 22313-1450
Sir:	
patents, publice except for: (a) upon which thi	at to 37 C.F.R. 1.97 and 1.98, and in compliance with 37 C.F.R. 1.56, the Office's attention is directed to the ations and other information listed on the attached PTO-1449. A copy of each listed document is enclosed pending applications or (b) those previously cited or submitted to the Office in the following application(s) is application relies for an earlier filing date under 35 U.S.C. 120; or (c) U.S. Patent(s) and published since the subject application was filed after June 30, 2003.
Serial No.: Filing Date	;
Applicant(s) b	document, publication or other information for which a date is not given on the attached PTO-1449, elieve(s) the same may qualify as "prior" art to this application and should be treated accordingly, although eserve(s) the right to contest the prior art status of any document, publication or information, should issue arise.
2. Regard Statement as in following docu	ing each listed document that is not in the English language, an English-language translation accompanies this adicated on the attached PTO-1449 or a concise explanation of the relevance of the document is set forth in the ament(s):
(a)	Copy of each English language version of a search report indicating the degree of relevance found by the foreign office of each document being submitted from the search report.
(b)	Attachment entitled "Concise Explanation of Relevance of Non-English Language Documents".
3. Pursua	nt to 37 C.F.R. 1.97(b) this Statement is being filed (one must be checked):
(a)	Within 3 months of the filing date or date of entry into the National Stage.
(b) <u>X</u>	Before the mailing date of a first Office Action on the merits. If this Statement is not filed before the mailing date of a first Office Action on the merits, the required certification is given below or, in the

Account No. 50-1063 for consideration of this Statement.

absence thereof, the Office is authorized to charge the required fee set forth in 37 C.F.R. 1.17(p) to Deposit

(c) After the period set forth in 37 C.F.R. 1.97(b) but before the mailing date of either a final action or a notice of allowance.
(1) The required certification is given below, or
(2) Enclosed is a check covering the fee set forth in 37 C.F.R. 1.17(p) for consideration of this Statement, or
(3) Charge the fee set forth in 37 C.F.R. 1.17(p) to Deposit Account No. 50-1063.
(d)After the mailing date of either a final action or a notice of allowance, but before payment of the issue fee. Petition hereby is made for consideration of this Statement and the required certification is indicated below.
(1) Enclosed is a check covering the fee set forth in 37 C.F.R. 1.17(i)(1), or
(2) Charge the fee set forth in 37 C.F.R. 1.17(i)(1) to Deposit Account No. 50-1063.
4. Certification (if applicable)
(a) The undersigned hereby certifies that each item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than 3 months prior to the filing of this Statement.
(b)The undersigned hereby certifies that no item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the undersigned's knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. 1.56(c) more than 3 months prior to the filing of this Statement.
 The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 50-1063.
Respectfully Submitted,
By July C. Sudle
Jeffrey R. Sadlowski Reg. No. 47,914
24 TH Floor, National City Center 1900 East 9 th Street Cleveland, Ohio 44114 (216) 696-8730
CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8
I hereby certify that this correspondence (along with any paper referenced as being attached or enclosed) is being

I hereby certify that this correspondence (along with any paper referenced as being attached or enclosed) is being deposited on the below date with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Assistant Commissioner for Patents, Alexandria, Virginia 22313-1450

Date: 3-30-2004

Jeffrey R. Sadlowski

PTO/SB/08A (04-03) Approved for use through 04/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE ne Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

APR 0 5 2004

Sheet

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known				
Application Number	10/681,759			
Filing Date	October 8, 2003			
First Named Inventor	Robert A. DeLine, et al.			
Art Unit	2122			
Examiner Name	Unknown			
Attorney Docket Number	MS304376 1/MSETD493116			

	1 00		U. S. PATEN	DOCUMENTS	
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ^{2 (f known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		^{US-} 6,279,149	08-21-2001	Field, et al.	
		^{US-} 6,230,314	05-08-2001	Sweeney, et al.,	
		US-			
	_	US-			
		US-	 		
		US-			
		US-			

	FORE	IGN PATENT DOCU	MENTS		
Cite No.	Foreign Patent Document	Publication	Name of Patentee or	Pages, Columns, Lines,	
	Country Code ³ Number ⁴ Kind Code ⁵ (if known)	MM-DD-YYYY	Approant of Orton Document	Or Relevant Figures Appear	T ⁶
		_			<u> </u>
		Cite No.1 Foreign Patent Document	Cite No.1 Publication Date	No. 1 Date Applicant of Cited Document	Cite No.1 Foreign Patent Document Publication Name of Patentee or Applicant of Cited Document Where Relevant Passages MM-DD-YYYY Publication Name of Patentee or Applicant of Cited Document Where Relevant Passages

Examiner	
Date	
Signature Considered Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

PTO/SB/08B (04-03) Approved for use through 04/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known Substitute for form 1449/PTO **Application Number** 10/681,759 **Filing Date** INFORMATION DISCLOSURE October 8, 2003 STATEMENT BY APPLICANT **First Named Inventor** Robert A. DeLine, et al. Art Unit 2122 (Use as many sheets as necessary) **Examiner Name** Unknown Attorney Docket Number Sheet MS304376.1/MSFTP482US 2 3 of

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		THOMAS BALL, et al., Automatically Validating Temporal Safety Properties of Interfaces, PLDI 2001, pp. 1-10	
		CHANDRASEKHAR BOYAPATI, et al., Ownership Types for Safe Programming: Preventing Data Races and Deadlocks, OOPSLA '02, November 4-8, 2002, Seattle, Washington	
		WILLIAM R. BUSH, et al., A Static Analyzer for Finding Dynamic Programming Errors, Software Pracrtice & Experience, 2000, Mountain View, California	
		MANUVIR DAS, et al., ESP: Path-Sensitive Program Verification in Polynomial Time, PLDI '02, June 17-19, 2002, pp. 57-68, Berlin, Germany	
, , ,		ROBERT DELINE, et al., Enforcing High-Level Protocols in Low-Level Software, PLDI 2001, Snowbird, Utah	
		ROBERT DELINE, et al., The Fugue Protocol Checker: Is Your Software Baroque?, OOPSLA '03, 2003, pp. 1-15, Anaheim, California	
		MANUEL FAHNDRICH, et al., Adoption and Focus: Practical Linear Types for Imperative Programming, PLDI '02, June 17-19, 2002, pp. 13-24, Berlin, Germany	
		CORMAC FLANAGAN, et al., Extended Static Checking for Java, PLDI '02, June 17-19, 2002, Berlin, Germany	
		CORMAC FLANAGAN, et al., Type-Based Race Detection for Java, PLDI 2000, Vancouver, British Columbia, Canada	
		JEFFREY S. FOSTER, et al., Flow-Sensitive Type Qualifiers, PLDI '02, June 17-19, 2002, pp. 1-12, Berlin, Germany	

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

PTO/SB/08B (04-03) Approved for use through 04/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Substitute for form 1449/PTO Complete if Known **Application Number** 10/681,759 Filing Date INFORMATION DISCLOSURE October 8, 2003 STATEMENT BY APPLICANT **First Named Inventor** Robert A. DeLine, et al. Art Unit 2122 (Use as many sheets as necessary) **Examiner Name** Unknown Attorney Docket Number Sheet MS304376.1/MSFTP482US 3 3 of

Examiner	Cite	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of	_
nitials*	No. ¹	the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		ANDREW D. GORDON, et al., Typing a Multi-Language Intermediate Code, ACM, 2001	
		SETH HALLEM, et al., A System and Language for Building System-Specific, Static Analyses, PLDI '02, June 17-19, 2002, pp. 69-82, Berlin, Germany	
		ERIK MEIJER, et al., Technical Overview of the Common Language Runtime, 2000	
		C. C. MICHAEL, et al., Improving Heuristic Software Analysis with Semantic Information, 2001, pp. 1-8	
		JOHN PENIX, REBOUND: A Framework for Automated Component Adaptation, 1998	
		SANDER TICHELAAR, et al., A Meta-Model for Language-Independent Refactoring, Proceedings ISPSE 2000, IEEE, 2000, pp. 157-167	

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.